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| 10/088,968   | 07/10/2002  | Steffen Thiel        | 10191/2255                    | 6611                   |
| 26646 7590 01/02/2009<br>KENYON & KENYON LLP<br>ONE BROADWAY<br>NEW YORK, NY 10004 |             |                      | EXAMINER<br>SELLERS, DANIEL R |                        |
|  |             |                      | ART UNIT<br>2614              | PAPER NUMBER           |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/088,968

**Applicant(s)**

THIEL ET AL.

**Examiner**

DANIEL R. SELLERS

**Art Unit**

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 16-19, 21-25, 27-31, 33 and 35-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16-19, 21-25, 27-31, 33 and 35-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 July 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments, see pp. 7-10, filed 5/27/08, with respect to Van Ryzin have been fully considered but they are not persuasive.
2. The examiner respectfully disagrees that inherency is incorrectly used in the previous office action. There appears to be no mention of inherency in the previous office action and there is no reliance on inherency in this office action. The Van Ryzin reference is relied upon to show that a non-linear order follows from the matrix table when the firmware is allowed to edit the table (column 4, lines 32-39). Van Ryzin teaches that the priority table is either not editable or it is changed when the user edits it or when the firmware detects a new device is turned on (column 4, lines 21-39). The last case is relied upon to show that Van Ryzin anticipates the claimed invention.

Van Ryzin teaches that the firmware edits the priority table and this implies that the table has an initial state. If no new devices are turned on, it can be inferred that the priority table remains static and high priority devices take over when they transmit audio information to the receiver (see figures 1-4). However, the teaching of a firmware editable priority table anticipates a non-linear order when a new device is turned on. Assuming a new device is turned on, the new device takes priority no matter where it previously stood in the priority table. The claimed invention does not mention when in time the first device has priority over the third and when the third has priority over the first, it only mentions that these events are happening. Therefore, Van Ryzin anticipates these claims.

Consider figure 3, wherein the CD (first device) has priority over the Tape (second device), and both have priority over the AM/FM (third device). If the CD and Tape are the only devices on, the firmware has not edited the priority table and the original order seen in figure 3 is preserved. However, Van Ryzin teaches that a third device, the AM/FM device, when turned on can receive top priority by automatically editing the priority table. This creates the situation where the third device has priority over the first, when previously the opposite was true and at both times the priority table is indicated by matrix elements. Furthermore, figure 4 shows that a determination of priority is determined (step 112) after all input signals are detected (step 102), wherein this implies the dynamically changing priority table is consulted every time this procedure is implemented.

The "vid1" and "vid2" are not relied upon to show a non-linear order as understood by the arguments, but the citation is used to show that several states are considered (i.e. the "X", "0", or "1" states). The first row of figure 3 shows that when the CD signal exists it does not care that the other signals exist or not. Figure 3 teaches if different audio sources can be interrupted. It is not positively recited if the third device interrupts the first until a non-linear managing mode is recited. It is the editable firmware that is relied upon to show the feature of a non-linear managing mode, wherein the matrix elements (i.e. the "X", "0", or "1") are rearranged when a new device is turned on.

**Claim Rejections - 35 USC § 102**

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. **Claims 16-19, 21-25, 30, and 31** are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Van Ryzin, USPN 6,052,471.

5. Regarding **claim 16**, Van Ryzin teaches a control device, comprising:

*a storage device for storing an audio-output matrix having plurality of matrix elements, each matrix element associated with a pair of audio sources from a plurality of different audio sources, including at least first, second and third matrix elements, wherein the first matrix element indicates if a first audio source can interrupt a second audio source, the second matrix element indicates if the second audio source can interrupt a third audio source, and the third matrix element indicates if the third audio source can interrupt the first audio source (figure 3, column 4, lines 32-39, and column 5, lines 30-44, wherein the "X", "1", or "0" items indicate if audio sources can interrupt other audio sources); and*

*an arrangement for outputting a selected one of the plurality of audio sources to a common output device (column 1, lines 13-34),*

*wherein the control device is configured to manage audio output interruption requests from the plurality of different audio sources as a function of the matrix elements of the audio-output matrix, wherein the managing includes a non-linear mode in which, if indicated by the matrix elements, the first audio source can interrupt the second audio source, the second audio source can interrupt the third audio source, and the third audio source can interrupt the first audio source (column 4, lines 23-39*  
teaches that the priorities are user editable and one instance allows newly turned on devices to take priority when the previously didn't have priority).

6. Regarding **claim 17**, the further limitation of claim 16, Van Ryzin teaches a control device, further comprising a selection device for selecting different attributes which are assigned to the matrix elements of an information-source pair (column 4, lines 21-27 and figure 3).

7. Regarding **claim 18**, the further limitation of claim 17, Van Ryzin teaches the control device, further comprising an input device for inputting the matrix elements together with the selected attributes (column 4, lines 27-28).

8. Regarding **claim 19**, the further limitation of claim 16, Van Ryzin teaches the control device, further comprising a video screen (column 1, lines 21-23 and lines 41-45).
9. Regarding **claim 21**, the further limitation of claim 16, Van Ryzin teaches the control device, further comprising a management device for managing a series of information sources in a waiting list (column 4, lines 32-39).
10. Regarding **claim 22**, the further limitation of claim 16, Van Ryzin teaches the control device, wherein the information-output device is at least one of a loudspeaker and a headphone (column 1, lines 24-34; teaches a typical receiver in a home theater setup, which typically uses one of a loudspeaker and a headphone for audio output).
11. Regarding **claim 23**, see the preceding argument with respect to claim 16. Van Ryzin teaches these features, wherein the output is to a common pre-amplifier stage of the receiver (figure 1 & 2).
12. Regarding **claim 24**, the further limitation of claim 23, see the preceding argument with respect to claim 17. Van Ryzin teaches these features.
13. Regarding **claim 25**, the further limitation of claim 23, see the preceding argument with respect to claim 18. Van Ryzin teaches these features.
14. Regarding **claim 30**, the further limitation of claim 23, see the preceding argument with respect to claim 21. Van Ryzin teaches these features.
15. Regarding **claim 31**, the further limitation of claim 16, see the preceding argument with respect to claim 16. Van Ryzin teaches a control device, wherein each

matrix element determines the priority of a first audio device (e.g., CD) with respect to a second audio source (e.g., TAPE).

16. Regarding **claim 35**, the further limitation of claim 16, see the preceding argument with respect to claim 16. Van Ryzin teaches a plurality of audio sources are portions of a plurality of different information sources (i.e. the plural audio sources, such as radio, CD, and tape cassettes, include portions of different information sources).

17. Regarding **claim 36**, the further limitation of claim 23, see the preceding argument with respect to claims 23 and 35. Van Ryzin teaches these features.

#### ***Claim Rejections - 35 USC § 103***

18. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

19. **Claims 27 and 28** are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Ryzin as applied to claim 26 above, and further in view of Callahan, USPN 4,306,114.

20. Regarding **claim 27**, the further limitation of claim 26, Van Ryzin teaches the control method, further comprising the step of selecting, based on an attribute of a matrix element assigned to an information-source pair by interruption (see the preceding argument with respect to claim 23). Van Ryzin does not teach the selection between relieving and interrupting the corresponding information source that is active longer.

Callahan teaches an automatic selection between priorities by digitally fading the signal (column 1, lines 7-15 and figure 2, unit 38), wherein fading teaches a mode of selection which relieves or interrupts the corresponding information source that is active longer (column 1, line 46 - column 2, line 15). It would have been obvious for one of ordinary skill in the art at the time of the invention to combine the teachings of Van Ryzin and Callahan for the purpose of selecting a method of switching. Callahan teaches the selection of gently fading in and out of music directly, and the selection of interrupting is implied by the prior art of Callahan. Furthermore the selection would allow the user to have editing control, wherein the solution of switching abruptly would be desirable in some situations, (i.e. to avoid the noise caused by the turntable when the needle reaches the end of a record).

21. Regarding **claim 28**, the further limitation of claim 26, see the preceding argument with respect to claim 27. The combination of Van Ryzin and Callahan teaches the selection between an abrupt transition and a smooth cross-fading.

22. **Claims 29, 33, and 37-39** are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Ryzin as applied to claim 26 above, and further in view of Hadley et al., USPN 5,243,640 (hereinafter Hadley).

23. Regarding **claim 29**, the further limitation of claim 26, see the preceding argument with respect to claim 26. Van Ryzin teaches the features of claim 26. However, Van Ryzin does not teach the selection between separating and superposing two corresponding information sources.



Hadley teaches a system, which selects by priority between an audio system and a cellular phone (abstract, column 1, line 62 - column 2, line 10). It would have been obvious for one of ordinary skill in the art at the time of the invention to combine the teachings of Van Ryzin and Hadley for providing a priority for telephones in a home theater or other audio setup.

24. Regarding **claim 33**, the further limitation of claim 16, see the preceding argument with respect to claim 16. In the combination, Van Ryzin teaches the control device of claim 16, wherein the priority matrix is also user editable (column 4, lines 21-28). Hadley teaches a matrix wherein a matrix element has a first and second attribute, wherein the first attribute determines the priority of a first audio source with respect to a second audio source, and the second attribute determines a manner of interruption of a higher priority one of the first and second audio sources with respect to a lower priority one of the first and second audio sources (column 3, lines 33-64 and figure 4). It would have been obvious for one of ordinary skill in the art at the time of the invention to extend this idea of interruption by mixing or by muting with another matrix element. For example, a radio and another device could have different interruptions based on functions of each system determining whether or not the audio is interrupted or mixed together.

25. Regarding **claim 37**, the further limitation of claim 33, see the preceding argument with respect to claim 33. The combination teaches this feature, wherein Van Ryzin teaches a new audio source can be selected by the user to relieve a previous audio source.

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26. Regarding **claim 38**, the further limitation of claim 33, see the preceding argument with respect to claim 33. The combination teaches this features, wherein Van Ryzin teaches a switching that is performed in an unnoticeable time period (column 1, lines 63-67). This indicates that the combination teaches abrupt switching.

27. Regarding **claim 39**, the further limitation of claim 33, see the preceding argument with respect to claim 33. The combination teaches these features, wherein a new phone call is mixed with the previous audio source, or radio (see Hadley, column 3, lines 55-64).

28. **Claims 40 and 41** are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Ryzin as applied to claim 23 above, and further in view of Callahan and Hadley.

29. Regarding **claim 40**, the further limitation of claim 23, see the preceding argument with respect to claim 23. Van Ryzin teaches the features of claim 23. Van Ryzin also teaches individually entering into an input device matrix the device matrix elements (column 4, lines 21-39), wherein the user or the firmware can individually enter the elements. Van Ryzin teaches interrupting based on a priority table (i.e. a second device is interrupted by a first device which has priority). However, Van Ryzin does not appear to teach the selection between relieving and interrupting the corresponding information source that is active longer.

30. Callahan teaches an automatic selection between priorities by digitally fading the signal (column 1, lines 7-15 and figure 2, unit 38), wherein fading teaches a mode of

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selection which relieves or interrupts the corresponding information source that is active longer (column 1, line 46 - column 2, line 15). It would have been obvious for one of ordinary skill in the art at the time of the invention to combine the teachings of Van Ryzin and Callahan for the purpose of selecting a method of switching. Callahan teaches the selection of gently fading in and out of music directly, and the selection of interrupting is implied by the prior art of Callahan. Furthermore the selection would allow the user to have editing control, wherein the solution of switching abruptly would be desirable in some situations, (i.e. to avoid the noise caused by the turntable when the needle reaches the end of a record). The combination does not appear to teach the selection between separating and superposing two corresponding information sources.

Hadley teaches a system, which selects by priority between an audio system and a cellular phone (abstract, column 1, line 62 - column 2, line 10). It would have been obvious for one of ordinary skill in the art at the time of the invention to combine the teachings of Van Ryzin, Callahan, and Hadley for providing a priority for telephones in a home theater or other audio setup.

31. Regarding **claim 41**, the further limitation of claim 40, see the preceding argument with respect to claims 40 and 33. The combination of Van Ryzin, Callahan, and Hadley teaches these features.

***Conclusion***

32. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wagner, USPN 4,742,348 - teaches a matrix device for the assignment of priorities (abstract);

Donner, USPN 5,722,069 - teaches a priority system in a vehicle (abstract);

Becker, USPN 6,157,725 - teaches another priority system in a vehicle (abstract and figure 1); and

Clarion Co Ltd., JP 09-035461 - teaches priority based interruptions in a vehicle's audio system.

33. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL R. SELLERS whose telephone number is (571)272-7528. The examiner can normally be reached on Tuesday to Friday, 8am to 6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on (571)272-7499. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Daniel R. Sellers/  
Examiner, Art Unit 2614  
/CURTIS KUNTZ/  
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